FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT

U.S. Department of Energy
Golden Field Office

Industrial Assessment Centers

Funding Opportunity Number: DE-PS36-06GO96000

Announcement Type: Modification No.002

CFDA Number: 81.086

Issue Date: 10/25/2005

Letter of Intent Due Date: Not Applicable

Pre-Application Due Date: Not Applicable

Application Due Date: 01/24/2006 at 5:00 PM Eastern Time

DATE: November 8, 2005

FROM: Matthew A. Barron, Contracting Officer

TO: All Prospective Applicants

SUBJECT: Modification No. 002 to Announcement No. DE-PS36-06GO96000, FY2006 Industrial Assessment Center

This modification is issued to effect cancellation of the Webcast scheduled for November 16, 2005. Accordingly the Announcement is amended by deleting Part II, Section G., **Webcast** .

All other parts of the Announcement remain unchanged.

Questions regarding this Announcement should be posted through the DOE Industry Interactive Procurement System (IIPS) so that all questions and answers may be publicly available. To access IIPS, please follow the following web page link:

http://e-center.doe.gov/iips/faopor.nsf/8373d2fc6d83b666852564520079 63f5/ef9f07fccc4b6f4d8525703e006d1794?OpenDocument

At the above referenced web page, please click on the dialogue box "Submit Question". Once DOE has provided a response to your question, a notification email will be sent to you from IIPS.

DATE: October 27, 2005

FROM: Matthew A. Barron, Contracting Officer

TO: All Prospective Applicants

SUBJECT: Modification No. 001 to the Grants Notice in Grants.gov for Announcement No. DE-PS36-06GO96000, FY2006 Industrial Assessment Center

This modification is to update and replace the Grants Notice posted in Grants.gov on July 18, 2005; as a result of recent changes in anticipated program funding that necessitated the reduction in planned awards under this Funding Opportunity Announcement. Accordingly, the Grants Notice posted in Grants.gov is modified to read as follows:

Document Type:	Grants Notice
Funding Opportunity Number:	DE-PS36-06GO96000
Posted Date:	October 25, 2005
Original Due Date for Applications:	Jan 17, 2006
Current Due Date for Applications:	Jan 24, 2006
Archive Date:	Nov 14, 2006
Funding Instrument Type:	Cooperative Agreement
Category of Funding Activity:	Energy
Expected Number of Awards:	15
Estimated Total Program Funding:	$6,000,000.00
Award Ceiling:	$500,000.00
Award Floor:	$360,000.00
CFDA Number:	81.086 -- Conservation Research and Development
Cost Sharing or Matching Requirement:	No

Eligible Applicants

Others (see text field entitled "Additional Information on Eligibility" for clarification)

Additional Information on Eligibility:

To be eligible, applicant institutions must satisfy the following requirements:

- Be located in the United States.
- Be a college or school of engineering that is an integral part of its institutional structure and that has at least one of its four-year undergraduate programs accredited by the Engineering Accreditation Commission or the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). (The IAC must be in the engineering department that holds the programmatic ABET accreditation.)

These restrictions ensure that applicants have the necessary engineering curriculum and faculty in place to successfully launch and maintain an Industrial Assessment Center (IAC) at their university. Since one of the two primary goals of the IAC program is the education/training of "tomorrow's energy engineers", it is essential that a strong engineering activity is in place.

Agency Name

U.S. Department of Energy, Golden Field Office, 1617 Cole Boulevard Golden, CO 80401

Description

This is a restricted eligibility announcement. Eligibility is restricted to a college or school of engineering located in the United States which has at least one of its four year undergraduate programs accredited by the Engineering Accreditation Commission or the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

The Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) Golden Field Office (GO) is soliciting applications for Industrial Assessment Centers (IACs or Centers). The IAC program is a university-based educational program to promote the training of young engineers in the understanding of the role of energy efficiency and renewable energy practices in basic manufacturing process systems and operations. The IAC program enables small and medium-sized manufacturers (those with energy costs between $100,000 and $2.5 million per year) to have comprehensive assessments performed at no cost to the manufacturer. Teams of engineering faculty and students from the Centers conduct assessments and provide training to help regional manufacturers operate more efficiently and improve competitiveness. The goals of the IAC program are to: provide engineering students with practical experience and training in energy engineering; help small- and medium-sized manufacturers identify opportunities to improve energy efficiency, minimize waste, and improve productivity; integrate the IAC program into other Industrial Technology Program (ITP) and EERE program areas and activities, where feasible; and create innovative approaches to delivering IAC, Industrial Technology Program (ITP) and EERE services, educational opportunities, and regional outreach.

The IAC program, as defined in this Funding Opportunity Announcement (FOA), will consist of two elements: the IAC base program and the IAC Specialist Center. At a minimum, applicants

must apply for the IAC base program portion of the work. Applicants may apply for the Specialist Center portion of the work as an add-on to the IAC base program element. The IAC base program will consist of the conduct of IAC assessments, as defined later in this document, and the associated practical, hands-on training of undergraduate and graduate students in industrial energy, waste and productivity assessment skills. Specialist Center applicants will also apply to take a leadership role in a specific energy efficiency technology area, or as a Specialist Center in a specific manufacturing system that has a substantial energy component as characterized by the EERE / Industrial Technology Program (ITP) Energy Management software tools and training.

In addition, the IAC program will entertain, within this FOA, modified Center configurations to facilitate the delivery of the key program elements. In the modified configurations, the prime applicant must meet all qualifications as outlined in this FOA, and will be considered the prime awardee, if selected to negotiate for award. Other institutions involved as described below (Protégé, Satellite or other) will operate as subcontracts to the prime awardee, and are not required to meet all of the prime applicant qualifications (such as accreditation by the Engineering Accreditation Commission or the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET)). These modified configurations include such examples as:

- Mentor / Protégé Centers: One location that meets the program qualification criteria will serve as the Mentor Center and assume the lead role. A second location will serve as the Protégé Center. The Protégé Center will not be required to assume the same level of responsibility and requirements as the Mentor Center but will have the opportunity to gain skills and knowledge in industrial assessments from the Mentor Center.
- Satellite Centers: One location that meets the program qualification criteria will serve as the Main Center and assume the lead role. One or more satellite locations, typically other campuses of the same University system, may be included to perform certain elements of the work – under strict guidance and supervision of the Main Center.
- Other configurations may be considered with the qualification that the Main Applicant Center assume the full responsibility to meet all qualification and performance requirements of the program.

Minority institutions are encouraged to apply as the prime applicant (Mentor Center or Main Center) or as a Protégé or Satellite Center.

It is anticipated that this FOA will result in the selection of approximately 12-16 IACs located within ABET accredited engineering programs at universities throughout the nation. Each IAC will meet the criteria and qualifications to be an IAC base program Center, with or without a modified configuration. An IAC Center selected under this FOA may also be a Specialist Center.

The award instrument utilized for this FOA will be cooperative agreements with a project period of up to five years in duration. Subject to funding availability, the total DOE funding available under this FOA is anticipated to be approximately $6,000,000 ($3,000,000 per year for the first two years.) Each IAC will conduct approximately 15 – 35 assessment days and train/employ approximately 5-10 students per year. All Centers selected for award under this FOA will be

evaluated on their performance after the first 12 months of operation. Centers not able to meet performance criteria will not be continued for the balance of the project period.

Funding amounts, per Center per year, are based on the combination of proposed assessment days and Specialist Center activities, if relevant. It is anticipated that not more than $250,000 per year would be awarded to any individual Center for all activities, under the current funding profile. DOE operates under the premise that to conduct each assessment day, from start to finish including all reporting and follow-up, will cost approximately $8,000. However, this amount varies across institutions. The selection of the number of assessment days the Center will perform should be based on: (1) the estimated institutional cost of performing an assessment day; (2) the Center's level of past experience; and (3) the decision to include Specialist Center activities. All Centers must propose a minimum of 15 assessment days and may not exceed a maximum of 35 assessment days. It is highly recommended that new Centers propose fewer assessment days in the earlier years of the project period at a lower budget level, with growth in future years encouraged.

Specialist Center activities, which might include peer, student and client training, system-specific assessments, or other related activities, would make up the balance of the annual budget request, within the parameters noted above. Specialist Center activities must fall within the overall budget ceiling. It is also expected that institutions awarded Specialist Center activities will be required to collect and maintain results of their activities and report results as appropriate to the IAC database and/or in case studies.

The DOE has established performance goals and expectations for the IAC program. These performance goals are focused upon reducing U.S. energy consumption and energy expenditures. The collection of benefits generated by the individual centers within the program is the foundation for program performance metrics. To this extent, Centers should strive to achieve the following benefits: completion of approximately 15 - 35 assessment days per year per center configuration; achieving an average total cost savings of $60,000 per year for each assessment (this includes approximately $30,000 in energy-related cost savings); and employing/training approximately 5-10 engineering students per center annually. DOE also expects that the focal point of each IAC is the comprehensive training and assessment experience received by the IAC student. This includes: (1) hands-on assessment experience; (2) additional training in industrial energy systems including, but not limited to, Industrial Technology Program Energy System Tools End-User and Qualified Specialist training; (3) attending professional meetings; (4) technical report writing; and (5) academic coursework.

Financial Assistance for this program is authorized by Public Law 102-486, Section 2101, Education and Outreach.

Background information on the IAC program

The IAC's major focus is to reduce the consumption of energy by U.S. industry through serving the needs of small and medium-sized local manufacturers. These needs relate chiefly to energy, waste and productivity associated with the manufacturing processes, but also include other aspects of a manufacturer's energy uses. The IAC serves manufacturers by analyzing the operating characteristics and energy, waste and productivity efficiency of manufacturing facilities; identification, quantification, and recommendation of specific opportunities to improve energy efficiency, reduce waste, and improve productivity as it relates to energy impact; and to report the findings to the facility in writing, together with detailed estimates of the savings, implementation costs, and payback periods. Under the leadership and supervision of Center

professional staff, students are integral contributors to center operations, including conduct of site visits, data analysis and report preparation. While student involvement is strong, the IAC director holds the ultimate responsibility for the overall quality of the assessment experience, technical recommendations and the assessment report.

In addition to providing energy, waste and productivity assessments to small and medium-sized manufacturing facilities, the IAC program plays a key role in educating and training engineering students in assessment practices with an emphasis on the energy-related aspects. IAC Centers are, first and foremost, academic training institutions. The IAC program has a long and proven track record of placing a high number of IAC graduates into energy-related careers and generating advanced degree topics and academic research related to industrial energy efficiency. IAC Centers are also noted for their objective expertise in the industrial manufacturing energy field within their region.

The Technical Field Manager (FM), located at the Center for Advanced Energy Systems at Rutgers University, has served as a primary technical interface for DOE in the IAC program since 1992. In this capacity, the Technical Field Manager serves several roles:

- Technical – The FM hosts and maintains the IAC assessment database for the program: a unique resource available to the public on the internet. They provide the technical oversight necessary in the program by reviewing the assessment reports to ensure the accuracy of the relevant data incorporated into this database. In particular, the FM supplies valuable input regarding the current state of energy saving technologies and evolving energy markets. The FM offers training and training materials for both experienced and new centers as well as outside entities. Additionally, the FM ensures that center personnel and student utilization are appropriate.
- Promotional – The FM maintains a website (referenced below) which is the gateway to the database and the program for many users interested in industrial energy savings. This database, representing over 12,000 assessment results, is offered free of charge, both in the original format as well as through an interactive interface that allows searches for common subjects. The site is also the home for IAC Case Studies, Energy Assessment Manuals, and other technical documents, such as the Self Assessment Guide for smaller clients that would like to help themselves. The FM encourages centers to leverage the program by integrating their activities with state agencies, utilities and private-sector organizations, developing curricula related to IAC work, and using multidisciplinary approaches to enhance energy efficiency.

While the IAC program tends to follow a fairly well-established path in terms of program expectations, activities and requirements are subject to periodic modifications due to changing program priorities, or federal budget scenarios. Participating institutions must be willing to accept and accommodate these periodic changes as the "way of doing business." IAC program and Technical Field Management organization guidelines and protocols will be revised as necessary throughout the project period to provide guidance on issues such as staffing, student requirements, and assessment specifics.

Additional information about the current status of the IAC program, the IAC Technical Field Manager, universities currently participating in the program, IAC student activities and DOE's portfolio of EERE programs may be found at http://www.oit.doe.gov/iac/, http://www.iac.rutgers.edu/, http://www.iacforum.org and http://www.eere.doe.gov.

Only the Grants Notice posted July 18, 2005, in Grants.gov has been modified. The Announcement remains unchanged**.**

NOTE: NEW REQUIREMENTS FOR GRANTS.GOV

Where to Submit
Applications must be submitted through Grants.gov to be considered for award.

Registration Requirements
There are several one-time actions you must complete in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider, and register with Grants.gov). See http://www.grants.gov/GetStarted. Use the Grants.gov Organization Registration Checklist at http://www.grants.gov/assets/OrganizationRegCheck.doc to guide you through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in the CCR registration process. Applicants, who are not registered with CCR and Grants.gov, should allow at least 14 days to complete these requirements. It is suggested that the process be started as soon as possible.

Questions
Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. Part VII of this announcement explains how to submit other questions to the Department of Energy (DOE).

Application Receipt Notices
After an application is submitted, the Authorized Organization Representative (AOR) will receive a series of four e-mails. It is extremely important that the AOR watch for and save each of the emails. It may take up to two (2) business days from application submission to receipt of email Number 2. You will know that your application has reached DOE when the AOR receives email Number 4. You will need the Submission Receipt Number (email Number 1) to track a submission. The titles of the four e-mails are:

Number 1 - Grants.gov Submission Receipt Number
Number 2 - Grants.gov Submission Validation Receipt for Application Number
Number 3 - Grants.gov Grantor Agency Retrieval Receipt for Application Number
Number 4 - Grants.gov Agency Tracking Number Assignment for Application Number

VERY IMPORTANT – Download PureEdge Viewer
In order to download the application package, you will need to install PureEdge Viewer. This small, free program will allow you to access, complete, and submit applications electronically and securely. For a free version of the software, visit the following web site: http://www.grants.gov/DownloadViewer.

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PART I – FUNDING OPPORTUNITY DESCRIPTION

The Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) Golden Field Office (GO) is soliciting applications for Industrial Assessment Centers (IACs or Centers). The IAC program is a university-based educational program to promote the training of young engineers in the understanding of the role of energy efficiency and renewable energy practices in basic manufacturing process systems and operations. The IAC program enables small and medium-sized manufacturers (those with energy costs between $100,000 and $2.5 million per year) to have comprehensive assessments performed at no cost to the manufacturer. Teams of engineering faculty and students from the Centers conduct assessments and provide training to help regional manufacturers operate more efficiently and improve competitiveness. The goals of the IAC program are to: provide engineering students with practical experience and training in energy engineering; help small- and medium-sized manufacturers identify opportunities to improve energy efficiency, minimize waste, and improve productivity; integrate the IAC program into other Industrial Technology Program (ITP) and EERE program areas and activities, where feasible; and create innovative approaches to delivering IAC, Industrial Technology Program (ITP) and EERE services, educational opportunities, and regional outreach.

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The award instrument utilized for this FOA will be cooperative agreements with a project period of up to five years in duration. Subject to funding availability, the total DOE funding available under this FOA is anticipated to be approximately $6,000,000 ($3,000,000 per year for the first two years.) Each IAC will conduct approximately 15 – 35 assessment days and train/employ approximately 5-10 students per year. All Centers selected for award under this FOA will be evaluated on their performance after the first 12 months of operation. Centers not able to meet performance criteria will not be continued for the balance of the project period.

Funding amounts, per Center per year, are based on the combination of proposed assessment days and Specialist Center activities, if relevant. It is anticipated that not more than $250,000 per year would be awarded to any individual Center for all activities, under the current funding profile. DOE operates under the premise that to conduct each assessment day, from start to finish including all reporting and follow-up, will cost approximately $8,000. However, this amount varies across institutions. The selection of the number of assessment days the Center will perform should be based on: (1) the estimated institutional cost of performing an assessment day; (2) the Center's level of past experience; and (3) the decision to include Specialist Center activities. All Centers must propose a minimum of 15 assessment days and may not exceed a maximum of 35 assessment days. It is highly recommended that new Centers propose fewer assessment days in the earlier years of the project period at a lower budget level, with growth in future years encouraged.

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and assessment experience received by the IAC student. This includes: (1) hands-on assessment experience; (2) additional training in industrial energy systems including, but not limited to, Industrial Technology Program Energy System Tools End-User and Qualified Specialist training; (3) attending professional meetings; (4) technical report writing; and (5) academic coursework.

Financial Assistance for this program is authorized by Public Law 102-486, Section 2101, Education and Outreach.

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In addition to providing energy, waste and productivity assessments to small and medium-sized manufacturing facilities, the IAC program plays a key role in educating and training engineering students in assessment practices with an emphasis on the energy-related aspects. IAC Centers are, first and foremost, academic training institutions. The IAC program has a long and proven track record of placing a high number of IAC graduates into energy-related careers and generating advanced degree topics and academic research related to industrial energy efficiency. IAC Centers are also noted for their objective expertise in the industrial manufacturing energy field within their region.

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- Promotional – The FM maintains a website (referenced below) which is the gateway to the database and the program for many users interested in industrial energy savings. This database, representing over 12,000 assessment results, is offered free of charge, both in the original format as well as through an interactive interface that allows

searches for common subjects. The site is also the home for IAC Case Studies, Energy Assessment Manuals, and other technical documents, such as the Self Assessment Guide for smaller clients that would like to help themselves. The FM encourages centers to leverage the program by integrating their activities with state agencies, utilities and private-sector organizations, developing curricula related to IAC work, and using multidisciplinary approaches to enhance energy efficiency.

While the IAC program tends to follow a fairly well-established path in terms of program expectations, activities and requirements are subject to periodic modifications due to changing program priorities, or federal budget scenarios. Participating institutions must be willing to accept and accommodate these periodic changes as the "way of doing business." IAC program and Technical Field Management organization guidelines and protocols will be revised as necessary throughout the project period to provide guidance on issues such as staffing, student requirements, and assessment specifics.

Additional information about the current status of the IAC program, the IAC Technical Field Manager, universities currently participating in the program, IAC student activities and DOE's portfolio of EERE programs may be found at http://www.oit.doe.gov/iac/, http://www.iac.rutgers.edu/, http://www.iacforum.org and http://www.eere.doe.gov.

PART II – AWARD INFORMATION

A. TYPE OF AWARD INSTRUMENT.

- DOE anticipates awarding cooperative agreements under this program announcement (See Section VI.B.2 Statement of Substantial Involvement)

B. ESTIMATED FUNDING.

- Approximately $6,000,000 is expected to be available over two years for new awards under this announcement.

C. MAXIMUM AND MINIMUM AWARD SIZE.

- Ceiling (i.e., the maximum amount for an individual award made under this announcement): $500,000 ($250,000 per year for the first two years subject to additional funding being provided as explained below.)

- Floor (i.e., the minimum amount for an individual award made under this announcement): $360,000 ($180,000 per year for the first two years subject to additional funding being provided as explained below.)

D. EXPECTED NUMBER OF AWARDS.

- DOE anticipates making approximately 12-16 awards under this announcement.

E. ANTICIPATED AWARD SIZE.

- DOE anticipates that awards will be in the $360,000 to $500,000 range for the first two years of the project period.

F. PERIOD OF PERFORMANCE.

- DOE anticipates making awards for a five year project period which will be divided into annual budget and work plan periods. Each award recipient will submit an annual work plan and budget for years 1 and 2 of the project cycle. While it is not known whether the program will be funded for years 3 through 5, the budget for years 1 and 2 of the project will represent two-fifths of the estimated budget for the five year project period. DOE reserves the right to funds project years 3 through 5, based upon available programmatic funding, without issuance of a new Funding Opportunity Announcement.

- Upon completion of the first budget period, Centers will be evaluated according to a set of performance criteria, set forth in the award document, to determine whether the Center should receive continued funding. Centers not able to meet performance criteria within the first budget period will not have their projects continued into a subsequent budget period. Meeting the performance criteria will be determined based on the accomplishment of work plan objectives, a technical review by the IAC Technical Field Manager and an adminstrative review by DOE personnel. A portfolio review of all Centers will be conducted prior to the end of the first budget period; additional portfolio reviews may occur at regular intervals as determined by DOE.

- If a project is not continued, DOE may decide (subject to available funding) to select another recipient to participate in the IAC program from a list of alternate selections resulting from this FOA. Alternate selections met all qualifications required for award and were placed on the "recommended" list for the Selection Official, but were not selected based on limited funding availability at the time of original award selections. These alternate selections will be sent a letter following the evaluation and selection period, informing them that they were qualified but limited funding precludes their selection. Applicants will be kept on the alternate selection list for 18 months, or until they request to be removed.

- Further, alternate selections may also be funded if additional programmatic funding becomes available.

G. WEBCAST.

- DOE anticipates holding an informational webcast on November 16, from 9-10 AM MST for all interested applicants. To participate in this webcast, please email goiac@go.doe.gov and include your name and contact information. Specific participation information will be sent prior to the meeting date.

PART III - ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS.

To be eligible, applicant institutions must satisfy the following requirements:

- Be located in the United States.
- Be a college or school of engineering that is an integral part of its institutional structure and that has at least one of its four-year undergraduate programs accredited by the Engineering Accreditation Commission or the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). (The IAC must be in the engineering department that holds the programmatic ABET accreditation.)

These restrictions ensure that applicants have the necessary engineering curriculum and faculty in place to successfully launch and maintain an Industrial Assessment Center (IAC) at their university. Since one of the two primary goals of the IAC program is the education/training of "tomorrow's energy engineers", it is essential that a strong engineering activity is in place.

B. COST SHARING

Cost sharing is not required.

C. OTHER ELIGIBILITY REQUIREMENTS.

Federally Funded Research and Development Center (FFRDC) Contractors.

FFRDC applicants are not eligible for an award under this announcement.

PART IV – APPLICATION AND SUBMISSION INFORMATION

A. ADDRESS TO REQUEST APPLICATION PACKAGE.

Application forms and instructions are available at Grants.gov. To access these materials, go to http://www.grants.gov, select "Apply for Grants," and then select "Download Application Package." Enter the CFDA and/or the funding opportunity number located on the cover of this announcement and then follow the prompts to download the application package. NOTE: You will not be able to download the Application Package unless you have installed PureEdge Viewer (See: http://www.grants.gov/DownloadViewer).

B. LETTER OF INTENT AND PRE-APPLICATION.

1. Letter of Intent.

- Letters of Intent are not required.

2. Pre-application.

- Pre-applications are not required.

C. CONTENT AND FORM OF APPLICATION – SF 424

You must complete the mandatory forms and any applicable optional forms (e.g., SF-LLL-Disclosure of Lobbying Activities) in accordance with the instructions on the forms and the additional instructions below. **Files that are attached to the forms must be in Adobe Portable Document Format (PDF) unless otherwise specified in this announcement**.

1. SF 424 - Application for Federal Assistance.
Complete this form first to populate data in other forms. Complete all required fields in accordance with the pop-up instructions on the form. To activate the instructions, turn on the "Help Mode" (Icon with the pointer and question mark at the top of the form).

2. Other Attachments Form
Submit the following files with your application and attach them to the Other Attachments Form. Click on "Add Mandatory Other Attachment" to attach the Project Narrative. Click on "Add Optional Other Attachment," to attach the other files.

Project Narrative File - Mandatory Other Attachment
The project narrative must not exceed 20 pages, including charts, graphs, maps, photographs, and other pictorial presentations, when printed using standard 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right). EVALUATORS WILL REVIEW ONLY THE NUMBER OF PAGES SPECIFIED IN THE PRECEDING SENTENCE. The font must not be smaller than 11 point. Do not include any Internet addresses (URLs) that provide information necessary to review the application. See Part VIII.D for instructions on how to mark proprietary application information. Save the information in a single file named "Project.pdf," and click on "Add Mandatory Other Attachment" to attach.

The Project Narrative comprises the primary description of the applicant's proposal to perform as an IAC. In the narrative file, each prospective IAC will provide a plan which addresses the Merit Review Criterion under Section V.A.2. and explains how the applicant university will meet or exceed the requirements listed in Appendix C for Model Base Center Operations and the IAC base program Guidelines. Detailed descriptions of Model Center, Model Staffing and Program and Specialist Guidelines are included in Appendix C of this announcement. If the prospective IAC is also applying to be an IAC Specialist Center, the additional criterion under Section V.A.2. specific to the IAC Specialist Center should also be addressed in this narrative section. An outline is provided below to assist applicants in addressing all the Merit Review Criterion:

Project Narrative Outline

(a) IAC Base Program Operations Approach

Provide a narrative which demonstrates understanding of IAC base program goals and established guidelines/protocols as identified in Appendix C. The narrative must also detail a sound operations plan with respect to proposed tasks to achieve all IAC base program objectives. The narrative should include:

- A clear description of the organizational model proposed for the applicant's Center. The proposal must clearly identify whether any modified configuration will be employed, and if so, must provide letters of commitment from all participants (letters of commitment are to be submitted as a separate attachment as described later in this section, and do not count towards the 20 page limit).
- Provide sufficient background information about the proposing college or university and the host Department to provide evidence, such as a commitment letter, that a Center will have strong administrative support. Provide proof of, or plan for, relationship between curriculum and teaching staff and IAC operations (letters of commitment are to be submitted as a separate attachment as described later in this section, and do not count towards the 20 page limit).
- Demonstrate an understanding of key health and safety requirements for leading students on industrial assessments and identify and describe a plan for health and safety training.

(b) Roles, Responsibilities, and Capabilities

- Provide evidence in the narrative that the applicant can meet or exceed Model Center Staffing, as detailed in Appendix C. Roles and responsibilities of all key staff must be clearly identified, including proposed time commitments and assessment loads. Demonstrate applicability of the qualifications and experience of key personnel as they relate to the performance of industrial energy, waste and productivity assessments. Academic and applied areas of expertise for key personnel should be discussed (Biographical sketches of key personnel should be submitted as a separate attachment, as described later in this section).
- Provide a plan for student staffing and utilization that emphasizes a comprehensive student training program including: assessment experience, training in tools and other resources related to industrial energy systems, professional exposure and relevant coursework. Detail plans to develop a process to ensure that "graduating" IAC students achieve a measurable level of competency in all or most of the areas noted above, and what that competency measure will be. Provide plan to recruit and train qualified students, including discussion of responsibilities and pay structure.
- Discuss the adequacy of facilities, equipment, and other resources to accommodate the proposed project (existing and proposed).

(c) Industrial Demographics and Program Integration

- Discuss the industrial concentration within the applicant's region that supports IAC establishment and discuss the regional industrial base and other related industrial services, such as Manufacturing Extension Partnerships (MEPs).
- Discuss past experience working with regional industries, including industrial audits, if applicable.
- Provide evidence of participation in regional industrial collaboration and demonstrate the ability to form partnerships and create synergistic efforts in the region. In particular, detail participation in relevant activities, organizations, partnerships, etc. that support and enhance establishment of an IAC.
- Discuss proposed Center staff's knowledge of/experience with DOE's EERE program activities, particularly those within the Industrial Technologies Program.

If the applicant is also applying to be an IAC Specialist Center as an add-on to the IAC base program, the following points must also be addressed the Project Narrative.

(d) IAC Specialist Center

- In the narrative, identify and discuss the specialty area(s) proposed for the Center, and demonstrate staff experience/skills in that selected area. Applicants must provide sufficient evidence in the narrative that proposed staff have the skills and knowledge to assume a leadership and expertise role in the proposed area, or define how that expertise will be acquired.
- Provide a practical plan for delivery of the expertise / specialty:
  - Clarify all roles/responsibilities;
  - Provide evidence of student utilization; and
  - Provide proof of value added to peers, students and IAC clientele
- Discuss how the Specialist activity will add value for the program, through documentation of savings through IAC case studies, database entries, or other means for tracking additional energy savings generated.

Project Summary/Abstract File

The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the publication. It should be a self-contained document that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (i.e., benefits, outcomes), and major participants (for collaborative projects).

The project summary must include the following statement, certifying the applicant's eligibility as defined in Part III – ELIGIBILITY INFORMATION:

"The applicant institution certifies that it is (1) located in the United States, and (2) a college or school of engineering that is an integral part of its institutional structure and that has at least one of its four-year undergraduate programs accredited by the Engineering Accreditation Commission or the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). (The IAC will be in the engineering department that holds the programmatic ABET accreditation.)"

This document must not include any proprietary or sensitive business information as the Department may make it available to the public. The project summary must not exceed 1 page when printed using standard 8.5" by 11" paper with 1" margins (top, bottom, left and right) with font not smaller than 11 point. Save this information in a file named "Summary.pdf," and click on "Add Optional Other Attachment" to attach.

SF 424 A Excel, Budget Information – Non-Construction Programs File

You must provide a separate budget for budget years 1 and 2 as well as a cumulative budget for the first two years of the project period. Use the SF 424 A Excel, "Budget Information – Non Construction Programs" form on the Applicant and Recipient Page at http://grants.pr.doe.gov. You may request funds under any of the Object Class Categories as long as the item and amount are necessary to perform the proposed work, meet all the criteria for allowability under the applicable Federal cost principles, and are not prohibited by the funding restrictions in this announcement (See PART IV, G). Save the information in a single file named "SF424A.xls," and click on "Add Optional Other Attachment" to attach.

Budget Justification File (GO PF-20 Form)

You must justify the costs proposed in each Object Class Category/Cost Classification category (e.g., identify key persons and personnel categories and the estimated costs for each person or category; provide a list of equipment and cost of each item; identify proposed subaward/consultant work and cost of each subaward/consultant; describe purpose of proposed travel, number of travelers and number of travel days; list general categories of supplies and amount for each category; and provide any other information you wish to support your budget). This information is provided herein by completion of the GO PF-20 form, found at http://www.go.doe.gov/WordForms/GO-PF20.doc. Provide the name of your cognizant/oversight agency, if you have one, and the name and phone number of the individual responsible for negotiating your indirect rates. If cost sharing is required, provide an explanation of the source, nature, amount and availability of any proposed cost sharing. Save this information in a single file named "Budget.pdf," and click on "Add Optional Other Attachment" to attach.

Subaward Budget File(s)

You must provide a separate budget (i.e., budget years 1 and 2 as well as a cumulative budget for the first two years of the project period) for each subawardee that is expected to perform work estimated to be more than $100,000 or 50 percent of the total work effort (which ever is less). Use the SF 424 A Excel for Non Construction Programs or the SF 424 C Excel for Construction Programs. These forms are found on the Applicant and Recipient Page at http://grants.pr.doe.gov. Save each Subaward budget in a separate file. Use up to 10 letters of the subawardee's name (plus .xls) as the file name (e.g., ucla.xls or energyres.xls), and click on "Add Optional Other Attachment" to attach.

Subaward Budget Justification File(s) (GO PF-20 Form)

For each subawardee that is expected to perform work estimated to be more than $100,000 or 50 percent of the total work effort (which ever is less), you must also justify the costs proposed in each Object Class Category/Cost Classification category (e.g., identify key persons and personnel categories and the estimated costs for each person or category; provide a list of equipment and cost of each item; identify proposed subaward/consultant work and cost of each subaward/consultant; describe purpose of proposed travel, number of travelers and number of travel days; list general categories

of supplies and amount for each category; and provide any other information you wish to support your budget). This information is provided herein by completion of the GO PF-20 form, found at http://www.go.doe.gov/WordForms/GO-PF20.doc. Save each Subaward budget justification in a separate file. Use up to 10 letters of the subawardee's name and "just" (plus .doc) as the file name (e.g., uclajust.doc or energyresjust.doc), and click on "Add Optional Other Attachment" to attach.

GO-PF19 – Financial Assistance Pre-Award Information Sheet

Applicants must complete a GO-PF19, Financial Assistance Pre-Award Information Sheet, found at http://www.go.doe.gov/WordForms/GO-PF19.doc. Save the form as a pdf file, named "GO-PF19.pdf" and click on "Add Optional Other Attachment" to attach.

Certifications/Assurances for Use with SF 424 File

You must complete and provide the "Certifications and Assurances for Use with SF 424" form on the Applicant and Recipient Page at http://grants.pr.doe.gov. Submission of an electronic application through Grants.gov constitutes the submission of a signed document. Type the name of the person reponsible for providing the certifications and assurances in the signature block and save as a pdf file. Do not submit a scanned copy of the form. Name the file "Certs.pdf," and click on "Add Optional Other Attachment" to attach.

Commitment Letters from Third Parties and Applicant Organizations

If a third party (i.e., a party other than the organization submitting the application) will be involved in all or part of the proposed project as part of a modified configuration, the applicant must include a letter from the third party. The letter should state their planned level of participation and role in the project and demonstrate the support of their host organization. Letters must be signed by the person authorized to commit the resources by the entity. Provide this information in a single file named "CLTP.pdf" and click on "Add Optional Other Attachment" to attach.

Commitment letters are also encouraged from the applicant's college or university and/or host Department which provide evidence that the applicant IAC will have strong administrative support such as sufficient office space, equipment, release time for the director/assistant director, etc., and that there is a relationship between curriculum and teaching staff and proposed IAC operations. Letters must be signed by the person authorized to commit the resources by the entity. Provide this information in a single file named "CLAO.pdf" and click on "Add Optional Other Attachment" to attach.

Biographical Sketch File

Provide a biographical sketch for each key person proposed, including subawardees and consultants if they meet the definition of key person. A key person is any individual who contributes in a substantive, measurable way to the execution of the project. Save all biographical sketches in a single file named "bio.pdf" and click on "Add Optional Other Attachment" to attach. The biographical information for each person must not exceed 2 pages when printed on 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right) with font not smaller than 11 point and must include:

Education and Training. Undergraduate, graduate and postdoctoral training, provide institution, major/area, degree and year.

Professional Experience: Beginning with the current position list, in chronological order, professional/academic positions with a brief description.

Publications. Provide a list of up to 10 publications most closely related to the proposed project. For each publication, identify the names of all authors (in the same sequence in which they appear in the publication), the article title, book or journal title, volume number, page numbers, year of publication, and website address if available electronically.

Patents, copyrights and software systems developed may be provided in addition to or substituted for publications.

Synergistic Activities. List no more than 5 professional and scholarly activities related to the effort proposed.

Reference Checks on Federal Awards

Applicant must submit a chart describing past or current federal awards as follows:

Submit information for at least five and no more than eight federal awards that were received by either the organization or principal investigator in the past five years for technologies relevant to this solicitation with award values in excess of $100,000.

If applicant has fewer than five awards meeting the above criteria, first submit those that meet the above criteria, and for the remainder, applicant shall provide information for federal awards over $2,500 received by either the organization or principal investigator for all technologies in the last five years (as directed previously, submit at least five and no more than eight references total).

See Appendix D for a sample format which may be used for this purpose. Save this information in a file named “RCFA.pdf.”

3. **SF-LLL Disclosure of Lobbying Activities** If applicable, complete SF- LLL. Applicability: If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying.”

Summary of Required Forms/Files

Your application must include the following documents:

Name of Document	Format	File Name
Application for Federal Assistance – SF424	PureEdge Form	N/A
Other Attachments Form: Attach the following files to this form:	PureEdge Form	N/A
Project Narrative File	PDF	Project.pdf
Project Summary/Abstract File	PDF	Summary.pdf
SF 424A File - Budget Information for Non-Construction Programs	Excel	SF424A.xls
Budget Justification File (GO PF-20)	PDF	Budget.pdf
Subaward Budget File(s)	Excel	See Instructions
Subaward Budget Justification File(s) (GO PF-20)	PDF	See Instructions
GO-PF19 – Financial Assistance Pre-Award Information Sheet	PDF	GO-PF19.pdf
Certifications/Assurances File	PDF	Certs.pdf
Commitment Letters from Third Parties Participating in Modified Configuration, if applicable	PDF	CLTP.pdf
Commitment Letters from Applicant Organizations	PDF	CLAO.pdf
Biographical Sketch File	PDF	Bio.pdf
Reference Checks on Federal Awards	PDF	RCFA.pdf
SF-LLL Disclosure of Lobbying Activities, if applicable.	PureEdge Form	N/A

D. SUBMISSIONS FROM SUCCESSFUL APPLICANTS.

- The Department anticipates that no additional submissions will be required. However, it reserves the right to request additional or clarifying information for any reason deemed necessary.

E. SUBMISSION DATES AND TIMES.

1. Pre-application Due Date. Pre-applications are not required.

2. **Application Due Date**. Applications must be received by January 24, 2006, not later than 5:00 PM Eastern Time. You are encouraged to transmit your application well before the deadline. APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.

F. INTERGOVERNMENTAL REVIEW

- This program is not subject to Executive Order 12372 – Intergovernmental Review of Federal Programs.

G. FUNDING RESTRICTIONS.

Cost Principles. Costs must be allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600.

Pre-award Costs**.** Recipients may charge to an award resulting from this announcement pre-award costs that were incurred within the ninety (90) calendar day period immediately preceding the effective date of the award, if the costs are allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600. Recipients must obtain the prior approval of the contracting officer for any pre-award costs that are for periods greater than this 90 day calendar period.

Pre-award costs are incurred at the applicant's risk. DOE is under no obligation to reimburse such costs if for any reason the applicant does not receive an award or if the award is made for a lesser amount than the applicant expected.

H. OTHER SUBMISSION AND REGISTRATION REQUIREMENTS

1. **Where to Submit.**
APPLICATIONS MUST BE SUBMITTED THROUGH GRANTS.GOV TO BE CONSIDERED FOR AWARD. Submit electronic applications through the "Apply for Grants" function at www.Grants.gov. If you have problems completing the registration process or submitting your application, call Grants.gov at 1-800-518-4726 or send an email to support@grants.gov.

2. **Registration Process.**

You must COMPLETE the one-time registration process (all steps) before you can submit your first application through Grants.gov (See www.grants.gov/GetStarted). **We recommend that you start this process at least two weeks before the application due date**. It may take 14 days or more to complete the entire process. Use the Grants.gov Organizational Registration Checklists at http://www.grants.gov/assets/OrganizationRegCheck.doc to guide you through the process. IMPORTANT: During the CCR registration process, you will be asked to designate an E-Business Point of Contact (EBIZ POC). The EBIZ POC must obtain a special password called "Marketing Partner identification Number" (MPIN).

PART V - APPLICATION REVIEW INFORMATION

A. CRITERIA

1. **Initial Review Criteria**. Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award (see PART III – ELIGIBILITY INFORMATION); (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity.

2. **Merit Review Criteria.**

   The following factors will be used to evaluate all Applications to determine which are eligible for selection as an IAC base program Center:

   Criterion 1: IAC Base Program Operations Approach **Weight: [40%]**

   - Extent of understanding of IAC base program goals and established guidelines/protocols and adequacy of operations plan with respect to proposed tasks to achieve all IAC base program objectives.
   - Feasibility and adequacy of organizational model, including identification of modified configuration, if applicable. If a modified configuration is being proposed, clearly identifies the level of participation of all participants including letters of commitment.
   - Degree of understanding of key health and safety requirements for leading students on industrial assessments and adequacy of plan for health and safety training.
   - Evidence of strong Department and/or University support for the Center (letters of support from the Department or University may suffice), and proof of, or plan for relationship between curriculum and teaching staff and IAC operations.

   Criterion 2: Roles, Responsibilities, and Capabilities **Weight: [40%]**

   - Degree to which applicant meets or exceeds Model Center Staffing, as detailed in Appendix C., and clearly defines roles and responsibilities of all key staff and proposed time commitments and assessment loads. Applicability of the qualifications and experience of key personnel as they relate to the performance of industrial energy, waste and productivity assessments.
   - Quality plan for student staffing and utilization which emphasizes a comprehensive student training program including: assessment experience, training in tools and other resources related to industrial energy systems, professional exposure and relevant coursework. Extent of plan to ensure that "graduating" IAC students achieve a measurable level of competency in all or most of the areas noted above, and what that competency measure will be. Completeness and quality of plan to recruit and train qualified students, including discussion of responsibilities and pay structure.
   - Adequacy of facilities, equipment, and other resources to accommodate the proposed project, existing or proposed.

- Ability to financially perform proposed activities within the budgetary requirements of the program (review of Budget Files).

Criterion 3: Industrial Demographics and Program Integration Weight: [20%]

- Sufficient industrial concentration to warrant IAC establishment within the applicant's region and applicant's degree of understanding of regional industrial base and other related industrial services, such as Manufacturing Extension Partnerships (MEPs)
- Past experience working with regional industries, including industrial audits
- Level of participation in regional industrial collaborations and ability to form partnerships and create synergistic efforts in the region, particularly participation in relevant activities, organizations, partnerships, etc. that support and enhance establishment of an IAC
- Familiarity with DOE's EERE program activities, particularly those within the Industrial Technologies Program

The following criterion will only be applied if an applicant specifically applies to be an IAC Specialist Center as an add-on to the IAC base program. To be selected as a Specialist Center the applicant must qualify to be selected as a base program Center. Specialist Centers will be reviewed based on the criterion below, and the availability of program funds to support the activities. The following criterion will not be point-scored, but will result in a recommendation by the merit review committee that either "yes", the applicant is recommended as a Specialist Center, or "no", the applicant is not recommended as a Specialist Center.

Supplemental Criterion 1: IAC Specialist Center YES/NO DECISION

- Experience/skills in selected specialty area and sufficient evidence that proposed staff have the skills and knowledge to assume a leadership and expertise role in the proposed area, or will acquire it.
- Plan for delivery of expertise / specialty:
    - **o** practicality of plan
    - **o** clarification of all roles/responsibilities
    - **o** evidence of student utilization
    - **o** proof of value added to peers, students and IAC clientele
- Specialist activity adds value for the program, and will provide documentation of savings through IAC case studies, database entries, or other means for tracking additional energy savings generated.

3. **Other Selection Factors.** The selection official will consider the following program policy factors in the selection process:
    - Past performance of Center
    - Demographics/Geographic Diversity (Client base and proximity to other Centers)
    - Involvement of Minority Institutions

B. REVIEW AND SELECTION PROCESS.

1. Merit Review.

- Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance and Unsolicited Proposals." This guide is available under Financial Assistance, Regulations and Guidance at http://professionals.pr.doe.gov/ma5/ma-5web.nsf/?Open.

2. Selection.

- The Selection Official will consider the merit review recommendation, program policy factors, and the amount of funds available.

- DOE reserves the right to conduct an independent third party review of financial capability for applicants that are selected for negotiation of award (including personal credit information of the principal(s) of a small business if there is insufficient information to determine financial capability of the organization).

3. Discussions and Award.

- The Government may enter into discussions with a selected applicant for any reason deemed necessary, including but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES.

- DOE anticipates notifying applicants selected for award by June, 2006 and making awards by August, 2006.

PART VI - AWARD ADMINISTRATION INFORMATION

A. AWARD NOTICES.

1. **Notice of Selection.** DOE will notify applicants selected for negotiation of award. This notice of selection is not an authorization to begin performance. (See Part IV.G with respect to the allowability of pre-award costs.)

   Organizations whose applications have not been selected will be advised as promptly as possible. This notice will explain why the application was not selected.

2. **Notice of Award.** A Notice of Financial Assistance Award issued by the contracting officer is the authorizing award document. It normally includes, either as an attachment or by reference: 1. Special Terms and Conditions; 2. Applicable program regulations, if any; 3. Application as approved by DOE; 4. DOE assistance regulations at 10 CFR part 600, or, for Federal Demonstration Partnership (FDP) institutions, the FDP terms and conditions; 5. National Policy Assurances To Be Incorporated As Award Terms; 6. Budget Summary; and 7. Federal Assistance Reporting Checklist, which identifies the reporting requirements.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS.

1. **Administrative Requirements.**

   The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR part 600 (See: http://ecfr.gpoaccess.gov), except for grants made to Federal Demonstration Partnership (FDP) institutions. The FDP terms and conditions and DOE FDP agency specific terms and conditions are located on the National Science Foundation web site at http://www.nsf.gov/awards/managing/fed_dem_part.jsp.
   .

2. **Special Terms and Conditions and National Policy Requirements.**

   Special Terms and Conditions and National Policy Requirements.
   The DOE Special Terms and Conditions for Use in Most Grants and Cooperative Agreements are located at http://grants.pr.doe.gov. The National Policy Assurances To Be Incorporated As Award Terms are located at http://grants.pr.doe.gov.

   Intellectual Property Provisions.
   The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at http://www.gc.doe.gov/techtrans/sipp_matrix.html.

   Statement of Substantial Involvement.The IAC program, although comprised of numerous separate entities (typically 22-26 Centers and a Technical Field Manager), operates as a seamless delivery network for manufacturing assessments and maintains a consistent level of training for students participating in the program. In order to ensure this consistency and uniformity of operations across the country, DOE collaborates with each entity in the program, and also fosters collaboration and coordination between all entities. DOE also provides additional monitoring to permit specified kinds of direction or

redirection of each entity's work due to interrelationships between projects and/or critical programmatic goals.

C. REPORTING.
Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement. See http://www.go.doe.gov/WordForms/4600-2.doc for the proposed Checklist for this program**.**

PART VII - QUESTIONS/AGENCY CONTACTS

A. QUESTIONS

Questions regarding the content of the announcement must be submitted through the "Submit Question" feature of the DOE Industry Interactive Procurement System (IIPS) at http://e-center.doe.gov. Locate the program announcement on IIPS and then click on the "Submit Question" button. Enter required information. You will receive an electronic notification that your question has been answered. DOE will try to respond to a question within 3 business days, unless a similar question and answer have already been posted on the website.

Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. DOE cannot answer these questions.

B. AGENCY CONTACT

Name: Michael Schledorn
E-mail: michael.schledorn@go.doe.gov
FAX: 303-275-4754
Telephone: 303-275-4993
800-644-6735 X4993 (toll free)

PART VIII - OTHER INFORMATION

A. MODIFICATIONS.

Notices of any modifications to this announcement will be posted on Grants.gov and the DOE Industry Interactive Procurement System (IIPS). You can receive an email when a modification or an announcement message is posted by joining the mailing list for this announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE.

DOE reserves the right, without qualification, to reject any or all applications received in response to this announcement and to select any application, in whole or in part, as a basis for negotiation and/or award.

C. COMMITMENT OF PUBLIC FUNDS.

The Contracting Officer is the only individual who can make awards or commit the Government to the expenditure of public funds. A commitment by other than the Contracting Officer, either explicit or implied, is invalid.

D. PROPRIETARY APPLICATION INFORMATION.

Patentable ideas, trade secrets, proprietary or confidentional commercial or financial information, disclosure of which may harm the applicant, should be included in an application only when such information is necessary to convey an understanding of the proposed project. The use and disclosure of such data may be restricted, provided the applicant includes the following legend on the first page of the project narrative and specifies the pages of the application which are to be restricted:

"The data contained in pages _____ of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data herein to the extent provided in the award. This restriction does not limit the government's right to use or disclose data obtained without restriction from any source, including the applicant."

To protect such data, each line or paragraph on the pages containing such data must be specifically identified and marked with a legend similar to the following:

"The following contains proprietary information that (name of applicant) requests not be released to persons outside the Government, except for purposes of review and evaluation."

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL.

In conducting the merit review evaluation, the Government may seek the advice of qualified non-Federal personnel as reviewers. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The applicant, by submitting its application, consents to the use of non-Federal reviewers/administrators. Non-Federal reviewers must sign conflict of interest and non-disclosure agreements prior to reviewing an application. Non-Federal personnel conducting administrative activities must sign a non-disclosure agreement.

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM.

Patent Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See "Notice of Right to Request Patent Waiver" in paragraph G below.)

Rights in Technical Data. Normally, the government has unlimited rights in technical data created under a DOE agreement. Delivery or third party licensing of proprietary software or data developed solely at private expense will not normally be required except as specifically negotiated in a particular agreement to satisfy DOE's own needs or to insure the commercialization of technology developed under a DOE agreement.

G. NOTICE REGARDING ELIGIBLE/INELIGIBLE ACTIVITIES.

Eligible activities under this program include those which describe and promote the understanding of scientific and technical aspects of specific energy technologies, but not those which encourage or support political activities such as the collection and dissemination of information related to potential, planned or pending legislation.

APPENDIX A – DEFINITIONS

"Amendment" means a revision to a solicitation.

"**Applicant**" means the legal entity or individual signing the Application. This entity or individual may be one organization or a single entity representing a group of organizations (such as a Consortium) that has chosen to submit a single Application in response to a solicitation.

"**Application**" means the documentation submitted in response to a solicitation. NOTE: Application is referred to as Proposal in IIPS.

"Authorized Organization Representative (AOR)" is the person with assigned privileges who is authorized to submit grant applications through Grants.gov on behalf of an organization. The privileges are assigned by the organization's E-Business Point of Contact designated in the CCR.

"**Award**" means the written documentation executed by a DOE Contracting Officer, after an Applicant is selected, which contains the negotiated terms and conditions for providing Financial Assistance to the Applicant. A Financial Assistance Award may be either a Grant or a Cooperative Agreement.

"**Budget**" means the cost expenditure plan submitted in the Application, including both the DOE contribution and the Applicant Cost Share.

"**Consortium (plural consortia)**" means the group of organizations or individuals that have chosen to submit a single Application in response to a solicitation.

"**Contracting Officer**" means the DOE official authorized to execute Awards on behalf of DOE and who is responsible for the business management and non-program aspects of the Financial Assistance process.

"**Cooperative Agreement**" means a Financial Assistance instrument used by DOE to transfer money or property when the principal purpose of the transaction is to accomplish a public purpose of support or stimulation authorized by Federal statute, and Substantial Involvement (see definition below) is anticipated between DOE and the Applicant during the performance of the contemplated activity.

"**Cost Sharing**" means the respective share of Total Project Costs to be contributed by the Applicant and by DOE. The percentage of Applicant Cost Share is to be applied to the Total Project Cost (i.e., the sum of Applicant plus DOE Cost Shares) rather than to the DOE contribution alone.

"Central Contractor Registry (CCR)" is the primary database which collects, validates, stores and disseminates data in support of agency missions. Funding Opportunity Announcements which require application submission through Grants.gov require that the organization first be registered in the CCR at http://www.grants.gov/CCRRegister.

"Credential Provider" is an organization that validates the electronic identity of an individual through electronic credentials, PINS, and passwords for Grants.gov. Funding Opportunity Announcements which require application submission through Grants.gov require that the

individual applying on behalf of an organization first be registered with the Credential Provider at http://www.grants.gov/CredentialProvider.

"Data Universal Numbering System (DUNS) Number" is a unique nine-character identification number issued by Dun and Bradstreet (D&B). Organizations must have a DUNS number prior to registering in the CCR. Call 1-866-705-5711 to receive one free of charge. http://www.grants.gov/RequestaDUNS

"E-Business Point of Contact (POC)" is the individual who is designated as the Electronic Business Point of Contact in the CCR registration. This person is the sole authority of the organization with the capability of designating or revoking an individual's ability to submit grant applications on behalf of their organization through Grants.gov. http://www.grants.gov/assets/EBIZRegCheck.doc

"E-Find" is a Grants.gov webpage where you can search for Federal Funding Opportunities in FedGrants. http://www.grants.gov/FindGrantOpportunities?search=basic

"Fedgrants.gov" is the official website where you can locate Federal Funding Opportunities http://fedgrants.gov/Applicants/index.html.

"**Financial Assistance**" means the transfer of money or property to an Applicant or Participant to accomplish a public purpose of support authorized by Federal statute through Grants or Cooperative Agreements and sub-awards. For DOE, it does not include direct loans, loan guarantees, price guarantees, purchase agreements, Cooperative Research and Development Agreements (CRADAs), or any other type of financial incentive instrument.

"Federally Funded Research and Development Center (FFRDC)" means a research laboratory as defined by Federal Acquisition Regulation 35.017.

"Funding Opportunity Announcement (FOA)" is a publicly available document by which a Federal agency makes known its intentions to award discretionary grants or cooperative agreements, usually as a result of competition for funds. Funding opportunity announcements may be known as program announcements, notices of funding availability, solicitations, or other names depending on the agency and type of program.

"Grant" means a Financial Assistance instrument used by DOE to transfer money or property when the principal purpose of the transaction is to accomplish a public purpose of support or stimulation authorized by Federal statute, and no Substantial Involvement is anticipated between DOE and the Applicant during the performance of the contemplated activity.

"Grants.gov" is the "storefront" web portal which allows organizations to electronically find and apply for competitive grant opportunities from all Federal grant-making agencies. Grants.gov is THE single access point for over 900 grant programs offered by the 26 Federal grant-making agencies. http://www.grants.gov

"Industry Interactive Procurement System (IIPS)" is DOE's Internet-based procurement system which allows access to DOE's business opportunities database, allows user registration and submittal of Applications: http://e-center.doe.gov/.

"**Key Personnel**" means the individuals who will have significant roles in planning and implementing the proposed Project on the part of the Applicant and Participants, including FFRDCs.

“Marketing Partner Identification Number (MPIN)” is a very important password designated by your organization when registering in CCR. The E-Business Point of Contact will need the MPIN to login to Grants.gov to assign privileges to the individual(s) authorized to submit applications on behalf of your organization. The MPIN must have 9 digits containing at least one alpha character (must be in capital letters) and one number (no spaces or special characters permitted).

"**Participant**" for purposes of this Solicitation only, means any entity, except the Applicant substantially involved in a Consortium, or other business arrangement (including all parties to the Application at any tier), responding to the Solicitation.

"**Project**" means the set of activities described in an Application, State plan, or other document that is approved by DOE for Financial Assistance (whether such Financial Assistance represents all or only a portion of the support necessary to carry out those activities).

“Proposal” is the term used in IIPS meaning the documentation submitted in response to a solicitation. Also see Application.

“Pure Edge Viewer” is a small, free program which allows you to access, complete and submit applications electronically and securely through Grants.gov. You will not be able to access, complete, or submit an application through Grants.gov, unless the Pure Edge Viewer is downloaded on your computer. http://www.grants.gov/DownloadViewer.

“Recipient” means the organization, individual, or other entity that receives a Financial Assistance Award from DOE, is financially accountable for the use of any DOE funds or property provided for the performance of the Project, and is legally responsible for carrying out the terms and condition of the award.

"**Selection**" means the determination by the DOE Selection Official that negotiations take place for certain Projects with the intent of awarding a Financial Assistance instrument.

"Selection Official" means the DOE official designated to select Applications for negotiation toward Award under a subject solicitation.

"**Substantial Involvement**" means involvement on the part of the Government. DOE's involvement may include shared responsibility for the performance of the Project; providing technical assistance or guidance which the Applicant is to follow; and the right to intervene in the conduct or performance of the Project. Such involvement will be negotiated with each Applicant prior to signing any agreement.

"**Total Project Cost**" means all the funds to complete the effort proposed by the Applicant, including DOE funds (including direct funding of any FFRDC) plus all other funds that will be committed by the Applicant as Cost Sharing.

APPENDIX B – GRANTS.GOV

Prior to submitting an application in Grants.gov, you must COMPLETE the one-time registration process (all steps) at www.grants.gov/GetStarted, which may take up to 14 days due to coordination of steps. Therefore, you are highly encouraged to register as soon as possible. The following points are provided to assist you in the registration process.

Please read through the information below prior to starting the registration process. This information will assist you in making the registration process as seamless as possible. It is important to follow the steps in the order outlined below, allowing the time specified between each of the steps.

Request a DUNS Number - Follow the instructions at http://www.grants.gov/RequestaDUNS. It is highly recommended that the DUNS number be requested by telephone at 1-866-705-5711, which will take about 10 minutes. There is no charge. ***Once the telephone registration is completed, you must allow 24 hours before attempting to use the DUNS number in the next step of registering with the Central Contractor Registry (CCR).***

Register with the Central Contractor Registry (CCR) - Go to http://www.grants.gov/CCRRegister and click on the "Help" button to locate the tutorial. Print the tutorial for reference and follow the instructions in the link above. We also recommend that you print and complete the 7-page CCR Worksheet at http://www.ccr.gov/CCRRegTemplate.pdf prior to registration, as it may take up to 3 days to gather the information needed for the worksheet. You are required to designate an Electronic Business Point of Contact (E-Business POC) and a Marketing Partner Identification Number (MPIN) in the CCR. It is important to provide the MPIN to the E-Business POC. For assistance with the CCR, contact the Assistance Center at 1-888-227-2423 or at CCR@dlis.dla.mil . You may also access the CCR Handbook at http://www.ccr.gov/handbook.cfm.

Install the PureEdge Viewer – ***Authorized Organization Representatives (AORs) are the individuals that will be given the authority to submit applications on behalf of their organization.*** All AORs must download and install the PureEdge Viewer on their computer by following the instructions at http://www.grants.gov/DownloadViewer. This small, free program will allow AORs to access, complete, and submit applications electronically and securely. If you encounter any problems, contact customer Support at 1-800-518-4726 or support@grants.gov. (This step may be done earlier in the process).

Register with the Credential Provider - AORs must register with the Credential Provider. ***AORs must wait a minimum of 3 business days for the CCR to become active before attempting to register with the credential provider.*** Go to http://www.grants.gov/CredentialProvider and click on the "Help" button to locate the tutorial. Print the tutorial for reference and follow the instructions in the link above. Record the user ID and password that you enter because you will need this information to register with Grants.gov as an AOR. ***AORs must wait approximately 20 minutes after completing the Credential Provider registration before going to the next step of registering with Grants.gov.*** If you encounter any problems, the Credential Provider may be reached at 800-386-6820 or via email at eauthhelp@orc.com or pkihelp@orc.com.

Register with Grants.gov - AORs must register with Grants.gov, utilizing the User ID and password obtained from registering with the Credential Provider. Go to https://apply.grants.gov/GrantsgovRegister# and click on the "Help" button to locate the tutorial. Print the tutorial for reference and follow the instructions in the link above. After you have completed the Grants.gov registration process, you will receive a confirmation that indicates whether your registration was successful.

After AORs successfully register with Grants.gov, an email will be generated to the E-Business Point of Contact (POC) that was designated in the CCR, informing them that an individual from their organization has registered in Grants.gov to be an AOR, capable of submitting applications in Grants.gov on behalf of their organization. (Further Information regarding the Electronic Business POC is provided below.) AORs will not be able to submit an application until they receive authorization from the E-Business POC. ***If the AOR does not receive an email authorization from the E-Business POC within 1 business day, contact the E-Business POC***. If you encounter any problems, contact customer Support at 1-800-518-4726 or support@grants.gov

Designate Privileges to the AOR - The Electronic Business POC is the sole authority of the organization with the capability of designating, or revoking, an individual's ability to submit grant applications on behalf of their organization through Grants.gov. Once the E-Business POC receives the email notification from the individual wishing to be recognized as an AOR, the E-Business POC should go to https://apply.grants.gov/AorMgrGetID, click on the "Help" button to locate the tutorial, print the tutorial for reference, then log on utilizing the DUNS Number and the Marketing Partner Identification Number (MPIN) that was designated by their organization when registering in the CCR and follow the instructions for designating privileges to the AOR. If you cannot locate the MPIN, contact the CCR Assistance Center at 1-888-227-2423 or at CCR@dlis.dla.mil .

Submit Application in Grants.gov - Once the E-Business POC has authorized privileges to the AOR, the AOR will receive an email notification that they have been given authorization. The AOR may then proceed to submit an application in Grants.gov (see the "Install the PureEdge Viewer" step above). For application instructions, go to http://www.grants.gov/Apply. The training demonstration at http://www.grants.gov/CompleteApplication will assist AORs in the application process.

Remember that you must open and complete the Application For Federal Assistance (SF-424) first, as this form will automatically populate data fields in other forms. If you encounter any problems, contact customer Support at 1-800-518-4726 or at support@grants.gov If you forget your user name or password, follow the instructions provided in the Credential Provider tutorial.

NOTE: Tutorials may be printed by right-clicking on the tutorial and selecting "print". In additional to the tutorials, the User Guide is a valuable resource. The User Guide is found at **http://www.grants.gov/GrantsGov_UST_Grantee/!SSL!/WebHelp/userguide.doc**.

APPENDIX C – IAC GUIDELINES AND MODEL CENTER OPERATIONS/STAFFING

The following appendix identifies DOE's expectations with regard to the operation of an Industrial Assessment Center. The Model Center Operations, Staffing and Program Guidelines provided below should be followed when developing your proposal.

IAC Base Program Guidelines

To assist with the understanding of the IAC base program, below are current program guidelines:

- The IAC base program consists of the conduct of generally 15 - 35 assessments per work plan year conducted by teams of engineering faculty and students at the defined Center(s.) The number of assessments conducted by each Center will depend on the annual IAC budget and the Center's annual work plan. Site visits for assessments are assumed to be one day in duration unless otherwise noted due to facility size and/or complexity. Assessments will be performed according to the assessment guidelines and protocols defined by the IAC program personnel and the Technical Field Management organization.
- Assessments are led by the IAC director, the assistant director, or a designated, approved professional IAC associate from the faculty or research staff of the institution. Students participate fully in all of the activities associated with the site visits, but a student can never substitute for the IAC director or professional associate and can never be, or appear to be, in charge of the site visit, the analysis or the report produced .
- A formal report will be written up and presented to the clients for every assessment conducted following the IAC program and Technical Field Management organization guidelines and protocols. These reports are to be based upon data acquired before, during and following the assessment visit. These detailed assessment reports consist of: (1) the data and other information derived from historical records and measurements made during the assessment; and (2) the assessment team's specific recommendations, together with the supporting assumptions used and the detailed calculations. The report begins with a detailed description of all manufacturing operations, a plant layout sketch and description, a major equipment list, and an analysis of how energy is used throughout the plant. Each of the energy, waste and productivity recommendations will include estimates of energy savings, energy, waste and productivity cost savings, implementation costs, and simple payback periods. The completed assessment report will be sent to the field manager for review and possible recommendations for revision, and to the client. Within 60 days following completion of the site visit key assessment data will be uploaded, as appropriate, into the IAC database. An example of a typical IAC assessment report is provided at the following website: http://iac.rutgers.edu/sample_report/
- From time to time, the IAC may be requested by the clients whom it has served to provide additional technical assistance. The IAC is encouraged to cooperate in this manner insofar as it is possible to do so within the time, assessment commitment and budget limitations of the IAC's contractual agreement.
- Within six to nine months after an assessment report has been issued, the IAC will again contact the client by telephone, or in person, to learn whether each of the opportunities identified and recommended has been implemented or scheduled for implementation and what the benefits and costs have been or are expected to be. Additional follow-up with the client is expected. The results of these contacts will be reported to the Technical Field Manager, and the IAC Database, at the level of detail and according to the format requested. Quality follow-up work and implementation results are key performance criteria.

- Each IAC director is expected to communicate professionally with the Technical Field Manager's program staff and to provide complete responses to all questions raised by the staff on written critiques of the IAC's assessment reports.
- Each director will meet once per year with other IAC directors, the field manager and his staff, and representatives of the Department of Energy. These annual meetings are usually held in July at varying locations around the country.
- IACs are expected to cooperate with the Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) and participate in other EERE programs/activities, as appropriate.
- Eligible plants should be located within a reasonable distance of the IAC (in the past 150 miles was used as a defining limit, but this is now considered only a rough guideline). Note: in order to maximize the effectiveness of the program new clients must be asked for approval to allow the program to develop materials such as case studies, and to use the firm's name, in order to promote industrial efficiency. All proprietary manufacturing information related to clients will, however, be strictly protected and all clients will be given an opportunity to review materials that contain information that identifies the plant. In addition to these conditions plants must also meet at least three of the following criteria:
  - Have a minimum of $100,000/year and a maximum of $2.5 million/year in utility costs at a client plant.
  - Have a maximum of $100 million/year in gross sales for a client plant.
  - Have a maximum of 500 employees at a client plant.
  - Lack in-house professional expertise in energy use and conservation at the client plan to be served.
- To ensure that the IAC program is a cost-effective investment by the government, savings for projects ***implemented*** by each IAC client following an assessment should equal or exceed the current program average of $30,000 in energy cost savings and $30,000 in combined cost savings from waste minimization and productivity improvement, for a total of $60,000 per assessment. DOE wants the centers within the IAC program to strive for continuous improvement and to consider this number a baseline figure to improve upon.
- Each center will identify one outstanding student for the position of the Lead Student, A second student as an alternate or back-up to the Lead is also encouraged. Lead students are expected to be leaders among the students within their center. They are responsible for maintenance of the center's student roster in the on-line IAC student registry, including ensuring that all students are registered and that departing students complete exit interviews. They will interact with the IAC student activities coordinator and with the Technical Field Manager as needed, with the approval of the center's director. They may provide suggestions and feedback regarding the student experience to other students within the program, to their center management, and to IAC program management. They will also be expected to attend the IAC Student Meeting, held in February on an annual basis.
- Periodically, DOE provides opportunities for IAC students to attend professional conferences, meetings and technical training venues. Each Center is expected to encourage and allow such participation. Priority is often given to those students presenting technical papers at the meeting.
- A portion of each assessment's cost shall be used to provide a stipend for students participating in the IAC program. The amount of this stipend must be defined in the cost proposal, along with a statement as to how this amount compares to similar student programs at the institution.
- The IAC program maintains and encourages a strong alumni element. All Centers are required to have active IAC student personnel registered in the Student registry and require

all departing students to participate in the exit survey. Maintenance of alumni contact information is a key interest of the DOE.

- The IAC base program will also require that Centers respond to data calls in a timely fashion from both the IAC program and the IAC Technical Field Manager and participate, as appropriate in key program meetings and activities, which will be called out for inclusion in the Center's Annual Workplans. This may include, at times, written documents, such as assessment or alumni case studies or research topics. The IAC base program may also require Center personnel and/or students to engage in training.
- HEALTH AND SAFETY TRAINING: CENTER DIRECTORS AND THEIR INSTITUTION SHALL ASSUME ALL RESPONSIBILITY FOR THE HEALTH AND SAFETY TRAINING OF ALL STUDENTS, FACULTY AND STAFF THAT PARTICIPATE IN THEIR IAC.

IAC Specialist Center Guidelines

To assist with the understanding of the IAC Specialist Center add-on to the base program, below are current program guidelines:

- IAC Specialist Centers will also be IAC base program Centers.
- IAC Specialist Centers will agree to assume a technical and program leadership role on behalf of the IAC program in one or more key energy-related technology or system area. Examples of these areas of specialty include, but are not limited to:
  - distributed energy resources with combined, cooling, heat and power,
  - steam systems,
  - motor and or fan systems,
  - compressed air systems,
  - process heating systems,
  - pumping systems,
  - renewable energy resources
  - or other energy intensive industrial process systems or plant profiler tool expertise.
- IAC Specialist Centers will strive to become recognized within their region for their expertise in their field of specialty.
- IAC Specialist Centers are Centers where staff and students assume expertise and leadership roles in one or more energy efficiency and renewable energy specialty area and provide enhanced training and services, above the IAC base program, to peers and clients in the specialty area. A key focus will be placed on Centers that have obtained a Qualified Specialist in one or more of the DOE/EERE Industrial Technologies BestPractices software tools (please visit the following website http://www.oit.doe.gov/bestpractices/software_tools.shtml for a detailed description of the software.) Other focal areas will include the balance of the DOE / EERE technology program areas in energy efficiency and renewable energy. Please visit the following website www.eere.energy.gov for details.
- Being a Specialist Center in one or more of the qualified areas might include the following activities:
  - Provide training to other IAC Center Directors and staff in the specialist area or tools,
  - Provide training to students in the specialist area or tools,
  - Provide training to clients, potential clients or other relevant organizations such as utilities or energy services companies or consultants in the specialist area or tool,
  - Develop academic course work and/ or provide academic courses in the specialist area or tool that can be replicated at other institutions,

- Develop advanced degree topics in the specialist area or application of the tool
- Generate academic literature and papers in the specialist area with the intent of presenting an publishing the work in key publications or conferences,
- In coordination with DOE / EERE develop new tools and resources to enhance industrial energy efficiency and renewable energy activities within the specialist area,
- Develop Case Studies and other outreach materials that would encourage the development and deployment of the technology area or tool.

Model Base Center Requirements

1. The model IAC is well integrated in the mission and teaching goals of the university and the "host" department, and has the full support of its department as well as university management (such as the dean).
2. In a model Base Center, the IAC director and assistant director meet the minimum qualifications of an earned bachelor's degree in engineering or engineering technology and hold teaching faculty appointments in the department of the school of engineering or engineering technology with ABET-accreditation. Professional engineering registration is also desirable. In addition, either the Director or Assistant Director has tenured status.
3. The model IAC maintains, at a minimum: a) one Director with faculty status, b) at least one Assistant Director with faculty status, and c) a minimum of six students (the ratio of undergraduate students to graduate students is 2:1), including one lead student. In addition, once the minimum requirements have been met, IAC staff may include paid professional assistants.
4. The model IAC can document previous or planned work at the institution/IAC that reflects relevant interaction with manufacturing industry, including industrial outreach activities, and also demonstrates knowledge and understanding of the industrial demographics of the area to be served.
5. Students in the model IAC are directly involved in the business and technical operations (recruiting clients, fully participating in audits, writing reports, etc.) of the Center, and are financially compensated for their work. The students' experience is integrated into the curricula of the institution. Students' responsibilities increase as their experience grows and their time as an IAC staff member increases. Students also have the opportunity to engage in professional development (outside trainings, conferences, etc.) and to share their experiences on a national level through activities such as the Annual Lead Student Meeting and the IAC Student Forum website.
6. The IAC director has established the IAC as a distinct entity within the organization that provides industrial assessment, i.e. energy efficiency, waste minimization and productivity efficiency, services to participating manufacturers – an entity that is also part of the larger energy community.
7. The model IAC has current and planned regional cooperative efforts related to industrial efficiency, such as work with state agencies, state Industries of the Future (IOF) programs, and the Department of Commerce's Manufacturing Extension Partnership (MEP) program. These relationships are deemed important in the Base IAC Centers, not only the Specialist Centers. The model IAC is the "go to" entity in their region for industrial efficiency – viewed as a valuable resource for the region.
8. The model Center has adequate office space, computer equipment, diagnostic equipment for conducting assessments and other resources to operate efficiently and professionally.

Model Center Staffing

1. In general, the model Center has two teaching faculty (at least one of whom has tenure; professional registrations and certifications, etc. are also desirable), at least 6 students, one of whom is designated as the “Lead Student”, and professional staff, if funds allow.
2. The model IAC is headed by a director who is a member of the educational institution's teaching faculty who holds a full-time appointment in a department of the institution's school of engineering with an ABET-accredited discipline in engineering or engineering technology. The director conducts/leads a minimum of 25% of the audits. He/she is also an advocate for the Center within the university as well as in the community. He/she interfaces with DOE, the IAC Field Manager and others, and responds to programmatic requests in a timely fashion.
3. The IAC director has demonstrable interest and experience in applied energy, waste and productivity efficiency, especially among manufacturers. The director either personally conducts the site visits to industrial plants or designates an associate, who also holds a similar professional appointment from the same educational institution, to conduct such visits (while maintaining the 25% rule). The director is accessible for questions and discussions requested by prospective or actual industrial clients of the IAC.
4. Roles and Responsibilities of Director: In the model center, the director serves as the strategic leader of the center, primary manager, and mentor his/her team of students. Strategic activities include:
    - Interfacing with DOE and the field manager, including attending the yearly director’s meeting,
    - Staying current on DOE initiatives including BestPractices software tools and insuring that senior staff become Qualified Specialists in at least one tool,
    - Integrating center activities within the University,
    - Developing collaborations with state agencies, utilities and industry groups,
    - Work on long term goals for the center and the program,
    - Promote the achievements of the center through publications and presentations, and
    - As primary manager, the director should:
        - Lead a significant number of assessments,
        - Oversee hiring of staff and students,
        - Arrange solicitation of clients,
        - Supervise the use of students,
        - Provide training for all staff and students, and
        - Meet deadlines for assessments and report submissions.
5. The IAC director will also appoint an assistant director to assist with operation and management of the IAC. It is highly recommended that this person meet the same requirements described for the Director in order to insure Center continuity upon potential personnel changes during the project period. Only one director may be appointed at each IAC who will have complete responsibility for that IAC's performance. Co-directors are not acceptable. In the model center, a second faculty member serves as assistant director. Assignments for the assistant director can be varied but normally include:
    - Leading a significant number of assessments,
    - Working with the director on the strategic direction of the center,
    - Help with student recruitment and training, and
    - Serve in place of the director when necessary.

6. Professional Support Staff: When sufficient funds exist, normally because of additional sponsored activities within a center, additional full time technical staff can be hired and supported. If the staff members enjoy faculty status, they may lead assessments. Centers may find it useful to hire other faculty or consultants who may have particular expertise or to handle extra work. Consultants should not lead assessments unless approved by DOE or the field manager
7. In the model Center, both the Director and Assistant Director have tenured status, although it is acceptable for only one to have tenure.
8. Students in the model IAC gain professional experience through the IAC, working in business-like operations, often similar to a professional consulting firm (project manager, project engineer, and technical support positions). They are paid based on their level of responsibility or the amount of work completed; this level of responsibility (and corresponding pay) increases as their tenure and experience increase. Designated lead students are expected to be leaders among the students within their center. All students are encouraged to attend trainings, workshops and conferences, and to write and present papers on IAC-related topics. In addition to their technical responsibilities, students participate in the online student registry, complete exit interviews when they leave the IAC program, and otherwise interface with other IAC students through the IAC Student Forum website located at http://www.iacforum.org and other opportunities offered by DOE through IAC student activities.
9. The model IAC has a mix of graduate and undergraduate students, with levels of responsibility assigned according to knowledge base and skills.
10. In the model IAC, student development and overall excellence is encouraged in numerous ways:
    - Student selection and standards: Model IACs follow a thoughtful plan for student selection, require minimum standards for starting and continuing students, and identify and reward excellence in students within their center;
    - Student training: Model IACs train students on safety and in general industrial manufacturing auditing practices, but in addition offer training for students outside the center through means such as DOE webcasts, DOE Industrial Technology Program nearby enduser tool and software trainings, and private resources such as Spirax Sarco training in steam or similar types of industrial process system training;
    - Student Excellence, Internal: Model IACs recognize excellence by their students within the department, school or university through certificate programs, special student awards, or other means; and
    - Student Excellence, External: Model IACs enrich the experience of students by having some of them obtain external certificates and recognition. For top students this might include becoming qualified specialists in specific energy systems such as Compressed Air Systems (http://www.oit.doe.gov/bestpractices/software/airmaster_cert.shtml), Fan Systems (http://www.oit.doe.gov/bestpractices/cfml/news_detail.cfm/news_id=8911), Steam Systems (http://www.oit.doe.gov/bestpractices/software/steam_cert.shtml), Process Heating (http://www.oit.doe.gov/bestpractices/software/phast_cert.shtml) or Pumping Systems (http://www.oit.doe.gov/bestpractices/software/psat_cert.shtml), or obtaining other available certificates. Model IACs also encourage active participation in related professional organizations like ASME, ASHRAE or AEE.
11. The model IAC imparts long-lasting impacts to its students, providing a practical experience and training in many critical “core” skills (including: assessment recommendation identification, client interaction, report writing, utility data analysis, energy savings calculations, conceptual assessment recommendation designs, IAC teamwork/group interaction, leadership) The program is widely recognized for its contributions to the next

generation of energy engineers. It is believed that the reputation of our graduates is highly dependent on the quality of their experience, and not necessarily on the quantity produced.

12. The model IAC has a minimum of one staff personnel who is a Qualified Specialist in one of the DOE/EERE BestPractice software tools, or will gain that designation within the first 12 months of operation.
13. The model IAC has a director or assistant director who is familiar with the DOE Office of Energy Efficiency and Renewable Energy, in particular the Industrial Technologies Program, or works to obtain this knowledge through meeting with key personnel during the first 12 months of operation.

Model Specialist Center and Staffing Addendum

1. The model Specialist Center will have established existing expertise in the area of specialty being proposed.
2. The area of specialty will be a recognized area within the energy efficiency renewable energy portfolio and will have a particular emphasis on the industrial manufacturing sector.
3. Specialist Centers will have demonstrated strength in tools, training resources in the identified specialty area.
4. Specialist Centers staffing will not impede the conduct of the IAC base program operations. Staff may be the same or adjunct, but roles and responsibilities of all will be clearly identified.
5. Specialist Centers document results from their specialist activities in the form of case studies, database uploads, or other compatible records that may be readily integrated into the IACs annual performance report to DOE management.

APPENDIX D – REFERENCE CHECKS ON FEDERAL AWARDS

Submit information for at least five and no more than eight federal awards that were received by either organization or principal investigator in the last five year for technologies relevant to this solicitation with award values in excess of $100,000. If applicant has fewer than five awards meeting this criteria, first submit those that meet the criteria and for the remainder, applicant shall provide information for federal awards over $2,500.00 received by either the organization or principal investigator for all technologies in the last five years.

Sample Format

(Complete items 1-6 below for each federal award. Duplicate this chart on supplementary sheets as necessary)

(1) AWARD TITLE	(2) INSTRUMENT NO.	(3) Total Award Value ($)	(4) PERIOD OF PERFORMANCE FROM:	(4) THRU:	(5) APPLICANT'S PROJECT DIRECTOR (Name, address, zip code, area code and telephone no.)	(6) FEDERAL AGENCY MAKING AWARD (Agency name, Federal Program Manager. address, zip code, telephone.)
					( ) -	( ) -
					( ) -	( ) -
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